A NEW SPECIES OF THE FAMILY NEPTICULIDAE (LEPIDOPTERA)

By J. O. Wilson

[Read 14 September 1939]

Owing to the small size of these minute insects, which rightly have been classed as the smallest of the Lepidoptera, much patience is needed for their study. They are extremely difficult to see and handle, and therefore have been much overlooked, but are evidently much more numerous than appears at present.





The Nepticulidae are generally easy of recognition by the rough-haired head, the large scape which is concave beneath and forms the cyccap, and the neuration which is much degraded and of peculiar construction.

The larvae, so far as is known, are all leaf miners, usually pupating outside the mine.

The material for this paper, which comprises four examples of the following species, was taken by the University of Adelaide Anthropological Expedition to the Warburton Ranges in August, 1935. As these specimens were dry and there was little hope of successful setting, three have been mounted on cover glasses—which allows inspection from all angles—and the fourth used for dissection.

Nepticula warburtonensis n. sp

 δ , \mathfrak{P} , 3-4 mm. Head yellowish-ochreous. Antennac $\frac{2}{3}$, ochrcous. Eyecap whitish-ochreous, large and smooth. Thorax ochrcous. Patagia pale ochreous posteriorly with brown-black scales. Forcwings lanceolate, costa arched then straight to apex, pale ochreous, irrorated throughout with brownish-black scales. Vein R_4 absent or coincident with R_5 . Cilia pale ochreous with scattered brownish-black scales near apex. Hindwings lanceolate with costa arched then concave to apex, light fuscous, cilia light fuscous.

Four specimens, coll. Wilson. No. 1 type, Nos. 2 and 3 paratypes, No. 4 dissected.

The evidence obtained from a study of descriptions of known Australian species indicates a close association superficially with N. *chalcitis* Meyr., from Western Australia. Detailed anatomical studies of many of the species is, however, lacking, and therefore correlation as to form and especially neuration must stand in abeyance.

Acknowledgments

Many thanks are due to Professor M. L. Mitchell, University of Adelaide, for use of special microscopic apparatus; also Dr. Hackett of the University Anthropological Expedition, and to Mr. Womersley and Mr. N. Tindale of the South Australian Museum, for help and criticism.

References

IMMS, A. D. 1936 Textbook of Entomology, revised

MEVRICK, E. 1906 Descriptions of Australian Tineina. Trans. Roy. Soc. S. Aust., 30, 56

MEYRICK, E. 1926 Revised Handbook of British Lepidoptera

MEYRICK, E. Exotic Microlepidoptera

TILLYARD, R. J. 1926 Insects of Australia and New Zealand